

## CLAIM AMENDMENTS

1. (canceled)

1           2. (currently amended) The method according to claim 10  
2 ~~, characterized in that~~ wherein for regions of the image data with  
3 high contrast, a parameter estimation or approximation is carried  
4 out.

1           3. (currently amended) The method according to claim 1,  
2 ~~characterized in that~~ 2 wherein for the parameter estimation or  
3 approximation, the "total least squares" (TLS), "ordinary least  
4 squares" (OLS), "Mixed OLS-TLS" and/or variation methods is used.

1           4. (currently amended) The method according to claim 10  
2 ~~, characterized in that~~ wherein the decay constant  $c$  and/or the  
3 object shift  $u$  is determined by parameter approximation from the  
4 image data.

1           5. (currently amended) The method according to claim 10  
2 ~~, characterized in that~~ wherein the decay constant  $c$  is determined  
3 by calibration of the camera.

1           6. (currently amended) The method according to claim 10  
 2 ~~, characterized in that the~~ wherein a differential equation (1)

$$\frac{dg(x,y,t)}{dt} = c(x,y,t)g(x,y,t) + q(x,y,t) \Leftrightarrow$$

$$\Leftrightarrow \frac{\partial g}{\partial x} u_x + \frac{\partial g}{\partial y} u_y + \frac{\partial g}{\partial t} - c(x,y,t)g(x,y,t) - q(x,y,t) = 0 \dots \dots \dots (1)$$

4 with

5 g = the gray value of the image sequence

6 u = object shift (vector field shift)

7 c = decay constant

8 q = source term (light) of interest

9 is used.

1           7. (currently amended) The method according to claim 1,  
 2 ~~characterized in that~~ 6 wherein known object movements  $u_x$  and  $u_y$  are  
 3 introduced directly into the differential equation (1).

1           8. (currently amended) The method according to claim 10  
 2 ~~, characterized in that it is implemented by~~ wherein field  
 3 programmable gate arrays (FPGA's) are used.

1           9. (currently amended) A device for digital image  
2 processing in CMOS camera images, ~~characterized in that~~ wherein it  
3 is suitable for carrying out the method according to claim 10.

4           10. (new) A method of digital image processing in CMOS  
5 camera images, the method comprising the steps of:

6           generating an output signal  $g$  from a CMOS camera;  
7           deriving from the output signal  $g$  its spatio-temporal  
8 gradients  $(g_x, g_y, g_t)$ ;

9           establishing a time constant  $c$  and a local object shift  
10  $(u_x, u_y)$  from prior knowledge; and

11           calculating a target signal value  $q$  from the output  
12 signal  $g$  as  $g = (g_x * u_x) + (g_y * u_y) + (g * -1 * c) + g_t$ .

1           11. (new) The method according to claim 11 wherein the  
2 target signal value  $q$ , the constant  $c$ , the  $x$  component  $u_x$  of the  
3 local object shift  $u$ , or the  $y$  component  $u_y$  of the local object  
4 shift  $u$  is derived by parameter estimation.